

THE COUNCIL FOR TOBACCO RESEARCH-U.S.A., INC.

February 19, 1974

MEMORANDUM

TO: Drs. Bing, Hockett, Liebow, Nordsiek and Sommers

FROM: W. U. Gardner

SUBJECT: Application 955.
George B. Weiss, Ph.D., University of Texas Southwestern Medical
School, Dallas.
"Agents which Alter the Transport, Storage and Distribution of
Nicotine."

This is a request for continuing support of a former AMA-ERF grantee (\$52,358 direct costs, 2/1/73-1/31/75). They have reported some work on nicotine on rat rectus muscle and have one paper on 5HTP efflux by nicotine in 1973. They have a big NIH application in for a mechanism of drug action project.

They propose an in vitro study using rat brain slices from several areas. Standard methods will be used for the uptake and the washout of ^{14}C -labeled nicotine, serotonin, norepinephrine, dopamine and nicotine uptake in the presence of some blockers such as decamethonium, curare and nicotine metabolites.

This seems to be a very self-limiting method of making advances at this time. Autoradiography would certainly give much more localization, and because of the heterogeneity of brain tissue, almost as much quantitation. Frozen section techniques are available so the even water-soluble substances can be localized. It will probably do nicotine localization shortly by immunofluorescent methods, at least of slices. Histochemical means and vesicle counts can be used to approximate some biogenic amines. ACh is not mentioned.

I suggest that Essman and Niel Miller might be ad hoc consultants.

W.U.G. ✓

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